ABSTRACT

Method for digitally determining the daily insulin regimen for a diabetic patient. The invention divides the patient's day into adjustable time intervals containing basal insulin

5   dosage rates and Carbohydrate-to-Insulin Ratio(s) (for determining meal insulin doses). The invention identifies the Corrective Insulin doses over a time interval as an "error" in the Prescription Insulin (Basal Insulin + Meal Insulin). Methods involve first estimating the change to one of these two components of Prescription Insulin, and then determining the change to the other by subtracting from the error. One method estimates Change in

10   Meal Insulin distributed among intervals proportional to old Meal Insulin. Another method lumps After-Meal Corrective Insulin together with Meal Insulin. Another method splits the interval at the After-Meal Corrective Dose and determines Basal from Time-Boundary Corrective Dose. Data may be obtained from the previous day, and a small fraction of error applied, leading to asymptotic reduction of error. Data may be

15   obtained from recent history, and a larger fraction of error applied by doctor or automatic method.

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